UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/262,986	03/05/1999	SHANKAR S. NARAYAN	081862.P133	1274

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EXAMINER
SINGH, RAMNANDAN P

ART UNIT	PAPER NUMBER
2644	

DATE MAILED: 06/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

	Application No.	Applicant(s)
Office Action Summary	09/262,986	NARAYAN ET AL.
	Examiner	Art Unit
	Dr. Ramnandan Singh	2644

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _05 March 1999_ .

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-23_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) _5-10_ is/are allowed.

6)☒ Claim(s) _1-4,11-13,15 and 17-23_ is/are rejected.

7)☒ Claim(s) _14, 16_ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _05 March 1999_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____ .

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2.   Claims 1-4, 11-13, 15, 17-18 and 21-23 rejected under 35 U.S.C. 102(b) as

being anticipated by either Randers [DE 41 26 815 A1] or Fujimoto [JP Application

NO. HEI 9[1997]-81199].

As per claims 1, 11, 15, 21:

        Randers teaches a voice-decoding system 14 with DTMF regenerator 15 and

method for regenerating a DTMF signal , wherein the regenerator 15 contains a

detector 17 and a generator 18. As shown in Fig. 2, the generator 18 comprises a

DTMF tone generator 9, a delay buffer 5 and a multiplexer 10, which outputs a DTMF

tone when a DTMF signal has been detected, otherwise it outputs the decoded signal

19 [Page 4]. The DTMG generator 18 compensates for a processing and transmission

delay so that voice-distorted DTMF tones are not missed by a connected device. Fig. 5

illustrates a DTMF tone generator, wherein the output of this DTMF generator and the

input signal are input into a multiplexer and the output of the multiplexer is controlled by

the detected character DD [Pages 7-8].

Fujimoto teaches a voice grade information transmitting device shown in Fig. 1, comprising a voice grade input terminal (11), a high efficiency voice coder (12) that can **compress** (or delay) voice signals, a DTMF detector (13) for detecting non-voice signals, a DTMF code pattern memory (14) for storing the data obtained by compressing the voice signals with high efficiency voice coder (12) in advance, a switch (15) for selecting and outputting either the data obtained by compressing the voice signals or the data obtained by compressing the non-voice signals [Page 4]. Fig. 3 shows another embodiment of this invention.

As per claims 2-4, 12-13, 17, 22-23:

Randers' Fig. 2 shows a detector 17 outputting a non-voice signal to DTMF generator 9 to regenerate a sequence of DTMF signal values.

Fujimoto's Fig. 1 show a DTMF detector 19 that outputs a non-voice signal to DTMF generator 20 to regenerate a sequence of DTMF signal values.

As per claim 18:

Randers teaches DTMF recognition by means of known speech coding based on linear predictive coding (LPC) parameters [page 2].

3.   A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4.   Claims 1-4, 11-13, 15, 17 and 21-23 are rejected under 35 U.S.C. 102(e) as

being anticipated by any of or 3) Naudus [US 6,259,691 B1].

As per claims 1, 11, 15, 21;

Naudus teaches a method for efficiently transmitting an audio

signal over a network-based telephone [col. 4, lines 33-52] in a system comprising:

DTMF/MF tone generator 134; audio decoder 130; DTMF/Audio controller 120; and

DTMF/audio multiplexer 136 shown in Fig. 4; wherein the DTMF/Audio controller

comprises DTMF detector 121, and variable delay generator 123 [Fig. 5]. The

DTMF/MF tone generator 134 converts the DTMF digits into G.711 data that translates

into the tone indicated by the DTMF digits. The DTMF tone data is output to the

DTMF/audio multiplexer 136, where the DTMF tone data is injected into the audio

stream [col. 17, lines 18-32]. When a DTMF signal is detected in the audio signal, the

DTMF/audio controller generates a delay to align the audio stream with the DTMF

stream [col. 18, line 52 to col. 19, line 22; col. 19, lines 33-54; col. 17, lines 39-52].

Figs. 6, 7, and 8 provide flowcharts for transmitting audio signals with DTMF signals

[col. 19, line 55 to col. 20, line 9; col. 20, line 41 to col. 21, line 35; col. 21, line 46 to col.

22, line 7; col. 22, lines 47-64].

As per claims 2-4, 12-13, 17, 22-23:

Naudus' Fig. 5 shows a DTMF tone detector 121 that outputs a non-voice signal

to DTMF/MF generator 134 to regenerate a sequence of DTMF signal values.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

6.   Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Naudus

as applied to claim 15 above, and further in view of Hoppal et al [US 5,737,331].

Regarding claim 19, Naudus does not teach expressly decoding a

plurality of encoded packets into a sequence of decoded data according to a

speech coding/decoding process.

Hopal et al teaches a method and apparatus for conveying audio signals using digital packets applicable to a speech coding/decoding process [col. 3, lines 1-26; col. 6, lines 59-65].

At the time of the invention, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to apply the audio packet coding/decoding technique of Hoppal et al to Naudus so as to transport quality digitized speech through lower bandwidth channels [Hoppal et al; col. 1, lines 22-41].

7.   Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Naudus [US 6,259,691 B1].

Regarding claim 2o, Naudus teaches using Servers 24-26 and computers for telephonic communications [col. 7, lines 21-34]. As is well known, a computer includes a disk drive or some other standard storage device, capable of accessing computer readable media having executable instructions stored thereon.

Allowable Subject Matter

8.   Claims 5-10 are allowed.

9.   Claims 14 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

10.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Dr. Ramnandan Singh whose telephone number is

(703)308-6270. The examiner can normally be reached on M-F(8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Forester Isen can be reached on (703)-305-4386. The fax phone numbers

for the organization where this application or proceeding is assigned are (703)872-9314

for regular communications and (703)872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is (703)306-

0377.

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Dr. Ramnandan Singh
Examiner
Art Unit 2644

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June 13, 2003

FORESTER W. ISEN
SUPERVISORY PATENT EXAMINER
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